

## ABSTRACT

A data network including at least one crossbar, wherein each crossbar comprises N ports and a plurality N of devices each associated with and connected to one port of one of said crossbars. Each one port of one crossbar includes an input buffer, a plurality N-1 of port output buffers, a plurality N-1 of fullness sensors, shutoff means. The input buffer receives messages from the device connected to its port and sends said messages to the other ports of the one crossbar. Each port output buffers corresponds to one of said other ports, wherein each port output buffer receives said messages only from said input buffer of its associated other port. Each fullness sensor is associated with one port output buffer and measures the fullness state of its associated port output buffer.

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